

## STRUCTURE G-406

This structure consists of two reinforced concrete box culverts each fitted with control gates and located in the L-2 borrow canal, immediately south of the confluence with the Deer Fence Canal. Control is effected by two remotely operated control gates at the upstream (north) end of each culvert, mounted onto the reinforced concrete head structure.

### PURPOSE

This structure serves as a diversion control structure for STA-5. Under most circumstances this structure will be closed in order for L-2 water to be routed to STA-5 via the G-342 A-D structures. When open, G-406 routes a portion of L-2 water south into the L-3 canal.

### OPERATION

This structure is remotely operated (\*) under L-2 borrow canal flood conditions as defined in the August 2000, STA-5 Operation Plan document. In accordance with this operation plan, the G-406 gates remain closed when G-406 HW stages are below elevation 16.0' NGVD. Once the G-406 HW stage reaches 16.0' NGVD, the gates are initially opened and then continued to be operated in response to rising or lowering water levels in the L-2 borrow canal.

(\*) In the event of loss of electrical power, G-406 can be manually operated by means of a portable generator or truck-mounted motor.

### FLOOD DISCHARGE CHARACTERISTICS

	Design
Discharge Rate	_____ cfs
	* _____ % of SPF
Headwater Elevation	_____ NGVD
Tailwater Elevation	_____ NGVD
Type Discharge	_____

\* During Standard Project Flood

### DESCRIPTION OF STRUCTURE

Type reinforced concrete box culverts with upstream gate control

Number of barrels 2

Size of barrels 10' Wide X 9' High

Length of barrels Approximately 50' feet each

Flow line elevation 6.0' NGVD

Service bridge elevation 21.75' NGVD

Water level which will by-pass structure \_\_\_\_\_

**Gates**

Number 2

Type Automated Single Stem Lift Gate

Size 10' Wide X 9' High

Control Remote and manual

Lifting Mechanism Type: hoist pedestal mounted, screw type, hand wheel operated

Date Acceptance into Service: October 1999 \*

\* Temporary operations authorized for 14-day period in response to Hurricane Irene.

**ACCESS:** This structure is located on L-3 borrow canal levee just south of the Deer Fence Canal

**HYDRAULIC AND HYDROLOGIC MEASUREMENTS**

Water Level: Upstream and downstream stilling wells

Gate Position Recorder: Yes

**DEWATERING FACILITIES (per gate)** None

**MONITORING:** When opened, Flow and Water Quality compliance monitoring required by

FDEP Permit Numbers 0131842 (EFA) and FL0177954 (NPDES).